



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,342	12/31/2003	Jeffrey G. Weers	0190.00	7605
21968 7590 10/06/2008 NEKTAR THERAPEUTICS 201 INDUSTRIAL ROAD SAN CARLOS, CA 94070				
EXAMINER CARTER, KINDRA D				
ART UNIT		PAPER NUMBER		
1617				
MAIL DATE		DELIVERY MODE		
10/06/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/751,342

Applicant(s)

WEERS ET AL.

Examiner

KENDRA D. CARTER

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 18-20, 23-25, 28-31, 38-40, 63-78 and 97-99 is/are pending in the application.
- 4a) Of the above claim(s) 97 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20, 23-25, 28-31, 34-40, 63-78, 98 and 99 is/are rejected.
- 7) ☒ Claim(s) 99 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The Examiner acknowledges the applicant's remarks and arguments of May 6, 2008 made to the office action filed February 6, 2008. Claims 1-15, 18-20, 23-25, 28-31, 38-40, 63-78 and 97-99 are pending. Claims 1, 23 and 63 are amended and claims 16, 17 and 34-37 are cancelled. Claims 98 and 99 are new.

In light of the amendments and cancellation of claims, the following rejections are withdrawn: 1) 35 U.S.C. 103(a) rejection of claims 1-15, 23-25, 28-31, 34 and 35 as being unpatentable over Ponikau; 2) 35 U.S.C. 112, first paragraph rejection of claims 1-20, 23-25, 28-31, 34-40 and 63-78; 3) the 35 U.S.C. 103(a) rejection of claims 38 and 39 as being unpatentable over Ponikau in view of Straub et al.; 4) the 35 U.S.C. 103(a) rejection of claims 17-19, 38 and 39 as being unpatentable over Ponikau in view of Unger; and 5) the obviousness-type double patenting rejection of claims 1-16, 18-20, 23-25, 28-31, 34-36, 38-40, 63-72 and 74-76 as being unpatentable over copending Application No. 11/187,757.

For the reasons in the previous office action and below, the Applicant's arguments of the following rejections were found not persuasive, thus the rejections are maintained: the 35 U.S.C. 103(a) rejection of claims 18-20 as being unpatentable over Ponikau in view of Straub et al.

Due to the amendment and cancellation to the claims, the modified and new 35 U.S.C. 103(a) rejections and obviousness double patenting rejection are made below. Further, since claims 63-78 were not previously addressed, the new Non-Final rejection is below. The Applicant's arguments are addressed below.

Claim Objections

Claim 99 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Particularly, claim 23 defines the fungal infection as aspergillosis, then the dependent claim 99 provides a list of other fungal infections including aspergillosis.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-15, 18-20, 23-25, 28-31, 38-40, 98 and 99 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 23-25, 27-30, 35-44 of copending Application No. 11/187,757 ('757) in view of Straub et al. (US 6,395,300 B1) in further view of Schmitt et al. (US 4,950,477). Although the conflicting claims are not identical, they are not patentably distinct from each other. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Application '757 teaches a method for treating a patient suffering from a fungal infection of the lung, comprising administering to the patient a therapeutically effective amount of a pharmaceutical formulation comprising a lipid matrix and at least one particle of an antifungal agent in the lipid matrix wherein the aerosolized (see claim 35) pharmaceutical formulation is for pulmonary administration (see claim 45) via inhalation (see claims 23 and 27). For clarification, the application '757 defines treating as providing prevention of a particular condition (see page 2, paragraph 26, lines 6-8). The lipid matrix comprises a phospholipid (see claim 7). The composition can be a dry

powder that has a bulk density of less than 0.5 g/cm^3 . The antifungal agent is amphotericin B (see claims 29 and 30). The amount of antifungal agent is at least twice the minimum inhibitory concentration of the antifungal agent for at least one week (see claim 35), three weeks or three months (see claims 39-42). Thus, determining the minimum inhibitory concentration is taught in application '757 because in order to administer twice the minimum inhibitory concentration, the minimum inhibitory concentration of the antifungal agent needs to be determined. The minimum inhibitory concentration is in the epithelial lining or the solid tissue of the lung (see claims 36 and 37), with a lung concentration at least $9 \text{ } \mu\text{g/g}$ or in the range of $9 \text{ } \mu\text{g/g}$ to $15 \text{ } \mu\text{g/g}$ (see claims 43 and 44).

The application '757 does not teach a single dose or two doses of the pharmaceutical formulation during the first week of administration (applicant's claims 8 and 9). The two period administration wherein the antifungal agent is administered more frequently or at a higher dosage during the first period than during the second period is also not taught (see applicant's claims 10). Neither is the administration comprising delivering the formulation periodically to maintain the antifungal agent lung concentration taught (see applicant's claim 13). '757 also does not teach that the powder is a porous particle (claims 1 and 23), or that the specific fungal infection treated is aspergillosis (claims 23, 98 and 99).

To one of ordinary skill in the art at the time of the invention would have found it obvious to combine the method of '757 and the administration detailed above in the applicant's claims 8, 9, 10 and 13 and determining the minimum inhibitory concentration of an antifungal agent for inhibiting pulmonary fungal growth because of the following: (1) the antifungal agent is administered for at least one week, three weeks or three months to maintain the twice the minimum inhibitory concentration (see claims 35 and 40); (2) it is within the art to administer a drug several times during a treatment. In order to treat the fungal infection the antifungal agent must be present in concentrations that are effective. Whether the drug is administered once, twice, or several times, the important factor is that twice the minimum inhibitory concentration is maintained in the lungs.

Straub et al. teaches low aqueous solubility drugs such as the anti-fungal drug amphotericin B in a porous matrix form to provide a faster rate of dissolution following administration to a patient, as compared to non-porous matrix forms of the drug (see abstract, lines 1-2 and 15-18 and column 4, lines 47-48). The preferred embodiment is for oral administration using a dry powder inhaler for pulmonary administration (see column 3, lines 1 and 6-8).

To one of ordinary skill in the art at the time of the invention would have found it obvious to combine the method of '757 and wherein the powder is porous because Straub et al. teaches that a porous matrix of the antifungal agent amphotericin B

provides a faster rate of dissolution following administration to a patient as compared to non-porous forms of the drug (see abstract, lines 1-2 and 15-18 and column 4, lines 47-48).

Schmitt et al. teaches a method of treating pulmonary aspergillosis by administering amphotericin B in an aerosol spray (see abstract).

To one of ordinary skill in the art at the time of the invention would have found it obvious to combine the method of '757 and wherein the specific fungal infection treated is aspergillosis because Schmitt et al. teaches that amphotericin B treats aspergillosis (see abstract).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

(1) Claims 1-15, 18-20, 23-25, 28-31, 38-40, 63-76, 98 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ponikau (US 6,207,703 B1) in view of Straub et al. (US 6,395,300 B1).

Ponikau teaches a pharmaceutical composition for treating an immune response to fungus in a mammal or a fungal related condition in the pulmonary anatomy comprising an effective dose of an anti-fungal agent (see column 10, lines 42, 43, 50-55) such as amphotericin B (see column 4, line 55 and claim 19) in an aerosol form as a powder or solution (see column 3, lines 65, 66 and column 4, lines 1; addresses claims 1, 11, 15, 20, 23, 63, 67, 71 and 76). Any fungal organism living in the mucus of a mammal can be a non-invasive fungal organism that is capable of inducing mucositis since it is the mere presence of the organism in an intolerant individual's mucus that causes inflammation, which include without limitation *Aspergillus* and *Candida* (see column 19, lines 9-25; addresses claims 23, 98 and 99). The formulation contains about 0.01 ng to about 1000 mg of the antifungal agent (see column 4, lines 10-12; addresses claims 12-14, 23, 34 and 68-70). The effective amount of a formulation can change or remain the same during an effective duration. The effective frequency of direct mucoadministration can be from about four times a day to about once every other week

in some embodiments of the invention, or about twice a day in still other embodiments of the invention. In addition the effective frequency of direct mucoadministration can be greater than once a day, or greater than once a week. The effective duration can be greater than about 7, 14, 30, 60, 90 days (see column 4, lines 28-38; addresses claims 1-10, 23, 28-31 and 63-65) or can vary from several days to several weeks, months or years (see column 25, lines 43 and 44). A typical effective amount can be any amount greater than or equal to the minimum inhibitory concentration for the fungal organism, and such amounts can be determined for individual antifungal agents using commonly available or easily ascertainable information involving antifungal effectiveness concentrations (see column 24, lines 10-12 and lines 21-23; addresses claims 1, 23 and 63). Direct mucoadministration to the lung airways can include inhalations or nasal sprays provided that the administered agent contacts lung airway mucus prior to crossing epithelium (see column 28, lines 9-12; addresses claims 1, 23 and 63). Any device can be used to administer the agent to the lung airway including inhaler, nebulizer, aerosol canister, spray can, and mask (see column 28, lines 17-20, addresses claims 1, 23 and 63). Other treatments can be used in combination with the antifungal agent to help enhance the treatment of non-invasive fungus-induced mucositis conditions, such as a second formulation with immunosuppressants (see column 29, lines 36-51; addresses claim 63).

Ponikau does not specifically teach that the minimum inhibitory concentration is in the epithelial lining or the solid tissue of the lung (claims 2, 3, 24, 25, 64 and 65).

Ponikau also does not teach a bulk density of less than 0.5 g/cm^3 (claims 1, 23 and 72), a dry formulation (claims 20 and 76), wherein the pharmaceutical formulation comprises porous particles (claims 1, 23 and 73), wherein the pharmaceutical formulation further comprises a matrix material that comprises one or more phospholipids (claims 18, 19, 38, 39, 74 and 75). Ponikau also does not teach wherein the administration comprises delivering at least two doses per week of the pharmaceutical formulation before the administration of the immunosuppressive agent and wherein the target concentration is maintained by administering doses of the pharmaceutical formulation less frequently as disclosed in claim 66.

Straub et al. teaches low aqueous solubility drugs such as the anti-fungal drug amphotericin B in a porous matrix form to provide a faster rate of dissolution following administration to a patient, as compared to non-porous matrix forms of the drug (see abstract, lines 1-2 and 15-18 and column 4, lines 47-48). The preferred embodiment is for oral administration using a dry powder inhaler for pulmonary administration (see column 3, lines 1 and 6-8). The matrix further includes a pegylated excipient, such as pegylated phospholipic to shield the drug from macrophage uptake, which prolongs its half-life or enhance bioavailability of the drug (see column 2, lines 63-67). The density of the dry porous matrix powder is preferably less than 0.8 g/mL to provide sufficient surface area to enhance wetting of the dry porous matrix and enhance drug dissolution (see column 3, lines 65-66 and column 4, lines 2-5).

To one of ordinary skill in the art at the time of the invention would have found it obvious and motivated to combine the method of Ponikau and the minimum inhibitory concentration is in the epithelial lining or the solid tissue of the lung because Ponikau teaches the following: (1) direct mucoadministration to the lung airways or pulmonary anatomy can include inhalations or nasal sprays provided that the administered agent contacts lung airway mucus prior to crossing epithelium (see column 28, lines 9-12 and see column 10, lines 42, 43, 50-55); and (2) a typical effective amount can be any amount greater than or equal to the minimum inhibitory concentration for the fungal organism, and such amounts can be determined for individual antifungal agents using commonly available or easily ascertainable information involving antifungal effectiveness concentrations (see column 24, lines 10-12 and lines 21-23).

To one of ordinary skill in the art at the time of the invention would have found it obvious and motivated to combine the method of Ponikau and a bulk density of less than 0.5 g/cm^3 , a dry formulation, and wherein the pharmaceutical formulation comprises hollow and/or porous particles within a matrix material that comprises one or more phospholipids because Straub et al. teaches the following: (1) drugs such as the anti-fungal drug amphotericin B in a porous matrix form to provide a faster rate of dissolution following administration to a patient, as compared to non-porous matrix forms of the drug (see abstract, lines 1-2 and 15-18 and column 4, lines 47-48); (2) the density of the dry porous matrix powder is preferably less than 0.8 g/mL to provide sufficient surface area to enhance wetting of the dry porous matrix and enhance drug

dissolution (see column 3, lines 65-66 and column 4, lines 2-5); and (3) the matrix further includes a pegylated excipient, such as pegylated phospholipic to shield the drug from macrophage uptake, which prolongs its half-life or enhance bioavailability of the drug (see column 2, lines 63-67). Thus, it would be beneficial for the methods and compositions of Ponikau to be dry, have a specific bulk density, and wherein the pharmaceutical formulation comprises hollow and/or porous particles within a matrix material that comprises one or more phospholipids because of the reasons stated above.

To one of ordinary skill in the art at the time of the invention would have found it obvious and motivated to combine the method of Ponikau wherein the administration comprises delivering at least two doses per week of the pharmaceutical formulation before the administration of the immunosuppressive agent and wherein the target concentration is maintained by administering doses of the pharmaceutical formulation less frequently because of the following teachings: 1) Ponikau teaches that the effective amount of a formulation can change or remain the same during an effective duration; and the effective frequency of direct mucoadministration can be from about four times a day to about once every other week in some embodiments of the invention, or about twice a day in still other embodiments of the invention; 2) Ponikau also teaches that the effective frequency of direct mucoadministration can be greater than once a day, or greater than once a week; the effective duration can be greater than about 7, 14, 30, 60, 90 days (see column 4, lines 28-38; addresses claims 1-10, 23, 28-31 and 63-65) or

can vary from several days to several weeks, months or years (see column 25, lines 43 and 44); and 3) Ponikau further teaches that other treatments can be used in combination with the antifungal agent to help enhance the treatment of non-invasive fungus-induced mucositis conditions, such as a second formulation with immunosuppressants (see column 29, lines 36-51). Thus, one skilled in the art would be motivated to adjust the administration of the antifungal formulation and the immunosuppressant formulation in order to provide enhanced treatment of non-invasive fungus-induced mucositis conditions.

(2) Claims 77 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ponikau (US 6,207,703 B1) in view of Straub et al. (US 6,395,300 B1) as applied to claims 1-15, 18-20, 23-25, 28-31, 38-40, 63-76, 98 and 99 above in further view of Gomez et al. (US 5,854,280).

The teachings of Ponikau and Straub et al. are as applied to claims 1-15, 18-20, 23-25, 28-31, 38-40, 63-76, 98 and 99 above.

Ponikau and Straub et al. do not specifically teach that the formulation comprises a propellant, wherein the administration comprises aerosolizing the antifungal agent by opening a valve to release the formulation (claim 77), or wherein the administration comprises a liquid formulation using a compressed gas (claim 78).

Gomez et al. teaches that the antifungal can be administered by inhalation conveniently delivered in the form of an aerosol spray presentation from pressurized packs with the use of a suitable propellant, e.g. dichlorodifluoromethane, trichlorofluoromethane, dichlorotetrafluoroethane, carbon dioxide or other suitable gas, or from a nebuliser. In the case of a pressurized aerosol the dosage unit may be determined by providing a valve to deliver a metered amount (see column 8, lines 47-55).

To one of ordinary skill in the art at the time of the invention would have found it obvious and motivated to combine the method of Ponikau and Straub et al. and a propellant with an opening valve or using comprising a compressed gas because of the following teachings: 1) Ponikau teaches a pharmaceutical composition for treating an immune response to fungus in a mammal or a fungal related condition in the pulmonary anatomy comprising an effective dose of an anti-fungal agent (see column 10, lines 42, 43, 50-55) such as amphotericin B (see column 4, line 55 and claim 19) in an aerosol form as a powder or solution (see column 3, lines 65, 66 and column 4, lines 1); and 2) Gomez et al. teaches that aerosol antifungal formulations can be administered with a propellant with an opening valve or using a compressed gas (see column 8, lines 47-55).

Response to Arguments

Applicant's arguments with respect to all cancelled and amended claims have been considered but are moot in view of the new ground(s) of rejection.

35 U.S.C. 103(a) over Ponikau in view of Straub et al.

The Applicant argues that Straub et al. is drawn to a method of improving rate dissolution of orally or parentally-administered drugs, not aerodynamically-light particles for pulmonary administration directly to the lung. The porous drug particle made by Straub et al. is dissolved in a volatile solvent to form a drug solution to form an emulsion, suspension or second solution, and removing the solvent and pore forming agent to yield the porous matrix of the drug.

The Examiner disagrees because Straub et al. teaches low aqueous solubility drugs such as the anti-fungal drug amphotericin B in a porous matrix form to provide a faster rate of dissolution following administration to a patient, as compared to non-porous matrix forms of the drug (see abstract, lines 1-2 and 15-18 and column 4, lines 47-48). The preferred embodiment is for oral administration using a dry powder inhaler for pulmonary administration (see column 3, lines 1 and 6-8). The matrix further includes a pegylated excipient, such as pegylated phospholipic to shield the drug from macrophage uptake, which prolongs its half-life or enhance bioavailability of the drug (see column 2, lines 63-67). The density of the dry porous matrix powder is preferably less than 0.8 g/mL to provide sufficient surface area to enhance wetting of the dry

porous matrix and enhance drug dissolution (see column 3, lines 65-66 and column 4, lines 2-5). Thus, the above provides motivation to formulate the method of Ponikau et al. to a porous particle with a specific aerodynamic diameter.

Conclusion

No claims are allowed. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KENDRA D. CARTER whose telephone number is (571)272-9034. The examiner can normally be reached on 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number:
10/751,342
Art Unit: 1617

Page 17

/K. D. C./
Examiner, Art Unit 1617

/SREENI PADMANABHAN/
Supervisory Patent Examiner, Art Unit 1617